

***Cost to repair manhole chimney sections the conventional (Old way)***

*This example will show the cost to repair a manhole chimney section where the frame is removed and leveled by saw cutting a square around the frame, removing the asphalt or concrete road material and the frame and lid, raising or leveling the frame, pouring ready mix concrete to 2" below the road surface, finishing with a layer of asphalt, sealing the asphalt joint, and installing a flexible chimney seal. The crew hour breakdown shows four men involved in the repair process, some as workers, some as traffic control and some as vehicle operators or heavy equipment operators. The total man-hours are 44 @ \$25 per hour for a total labor cost of \$1100 . The total material cost is \$372. The total repair cost is \$1472.00. The length of time traffic is disrupted is two days minimum.*

***Materials used***

<i>Concrete or plastic adjusting rings ( 3 )-----</i>	<i>-\$60</i>
<i>Sealant between rings-----</i>	<i>-\$10</i>
<i>Shims-----</i>	<i>-\$2</i>
<i>Ready mix concrete-----</i>	<i>-\$45</i>
<i>Asphalt-----</i>	<i>-\$45</i>
<i>Asphalt sealant-----</i>	<i>-\$10</i>
<i>Chimney seal-----</i>	<i>-\$200</i>
<i>Total material-----</i>	<i>-\$372</i>

***Labor ( 4-man crew )***

<i>Saw cut road-----</i>	<i>2</i>
<i>Air hammer (remove frame)-----</i>	<i>2</i>
<i>Rebuild ( level frame )-----</i>	<i>2</i>
<i>Pour ready mix concrete -----</i>	<i>1</i>
<i>Apply asphalt finish layer-----</i>	<i>2</i>
<i>Install chimney seal-----</i>	<i>2</i>
<i>Total man hours labor-----</i>	<i>44</i>
<i>Total labor cost-----</i>	<i>\$1100.00</i>

***Total cost labor and materials-----****\$1472.00*

***Assets committed to project***

*4 men, dump truck, tag trailer, backhoe, utility truck, air compressor, air hammer, concrete saw, asphalt roller, hot tar kettle, chimney seal tools, barricades.*